Reo Motor Car Company Plant
2100 South Washington Street
Lansing
Ingham County
Michigan

Historic American Engineering Record
HAER MI-4

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN ENGINEERING RECORD

Diamond Reo Motor Plant

MI-4

Location:	2100 South Washington Street, Lansing, Ingham County, Michigan.
Date of Construction:	1904-1936.
Present Owner:	Diamond Reo Joint Venture, Inc. Harold Schott, President 1331 South Washington Street Lansing, Michigan.
Present Use:	Vacant; to be demolished.
Significance:	The Diamond Reo Motor Plant, situated in an industrial area near downtown Lansing, consists of the only known extant and little altered structures associated with Ransom Eli Olds' successful ventures into automobile manufacturing. The most significant buildings include: 1905 office building, 1905 factory, 1908 engineering building, 1917 employee clubhouse, and four other factory buildings constructed between 1905 and 1914. The buildings exhibit many original exterior architectural features.
Historian:	Ralph J. Christian, Historic Landmarks Project, American Association for State and Local History, 1400 Eighth Ave., S., Nashville, Tennessee 37203.

Description

The Reo Motor Car Company Plant, situated in an industrial area near downtown Lansing, consists of the only known extant and relatively little altered structures associated with Ransom E. Olds' successful ventures into automobile manufacturing. The most significant Olds-related remains here are the 1905 Office Building; a 1905 factory; the 1908 Engineering Building; a 1917 employee Clubhouse; and four other factory buildings constructed between 1905 and 1914. All are brick, sit on concrete foundations, have either flat or monitored roofs, and exhibit many original exterior architectural features. The only other known extant Olds structure is a much altered section of the Olds Gasoline Engine Works plant on River Street in Lansing. The Ransom Olds Mansion, once located not far from the Reo plant, has been demolished.

Shortly after he left the Olds Motor Works, Olds announced the formation of the Reo Motor Car Company and began construction of a factory, (Building No. 2) and office, (Building No. 1) on land which he had purchased previously in connection with his peat business. Within a year, the plant and office structures were completed, and as Reo's business increased, he expanded the size of his original plant by adding an additional story. Around the same time, he constructed three smaller factories (Buildings No. 5,6,7) adjacent to it and gradually increased them in size over the years. By 1908, the engineering building (Building No. 4), where Olds helped design a number of the company's models, had been completed. Six years later, he built another large factory, and in 1917 he completed a beautiful clubhouse facility to provide for his employee's recreational needs. Shortly afterward, however, Olds lost interest in automobile manufacturing and surrendered control of Reo to other individuals. Office (Building No. 1). Since its completion in 1905, this west-facing, two-story, rectangular-shaped, brick structure, measuring 50 by 100 feet, has served as a company headquarters. In an office here, Olds made many of the decisions that helped make Reo one of the four largest automobile manufacturers in the United States by 1907. On its front facade, the edifice's walls feature slightly protruding brick pilasters at the corners and on both sides of a central pavilion. Sash-type windows are set in round-arched surrounds which feature radiating voussoirs of white-painted brick and have stone slipsills. The building is capped with a flat roof covered with tar and gravel and has an overhanging dentiled cornice. The doorway is marked by an overhanging entablature supported by flanking pilasters--all constructed of wood.

Inside, the structure has been extensively altered, and almost all original features have been covered over in numerous remodelings. Presently, it serves as office space for the firm engaged in liquidating the assets of bankrupt Diamond Reo Trucks, Inc. Although the building has been neglected somewhat in recent years, it remains in good condition.

1905 Factory (Building No. 2). This three-story brick building, whose west end abuts the Office, is the oldest Reo factory structure. Originally a two-story edifice when completed in 1905, this 72-by-543-foot building was soon enlarged by the addition of another story. The structure rests on concrete foundations over a full basement and is capped by a tar-and-gravel-covered flat roof that is partially monitored at its west end. Exterior walls are of plain red brick set in American bond and are unadorned except for brick corbeling along the roofline. Doublehung one-over-one sash-type windows are set in rectangular surrounds capped by rounded stone arches.

Inside, this pioneer factory exhibits a number of original features. In the basement are the faint outlines of a small track used to move vehicles from one assembly point to another. Many original support posts and ceiling joists remain, although they have been reinforced with structural steel in recent years. Some area exhibit original flooring, particularly the wood block type typical of early automobile plants. Presently, this structure is stripped of most of its manufacturing equipment and stands vacant. Overall, its condition is fair.

Engineering Building (Building No. 4). At its completion in 1908, this three-story, brick structure, which stands a few feet south of the office, marked the height of Reo's importance as a major automobile producer. Olds probably planned some of his cars here, and over the years Reo engineers designed a number of beautiful cars and trucks within its walls. Somewhat irregular in its configuration, this edifice's exterior features string courses at the base of its first and second story windows, a heavy stone course at the base of the third story, a deteriorated wood cornice near its roofline, and a heavy roof pediment decorated with brick corbeling. Most windows are set in rectangular surrounds and are of the one-over-one wood sash variety. On either end of the front (west) facade, however, is a single window featuring a center-pointed Norman arch that sets off an arched entrance of similar design.

The interior has undergone a great deal of alteration over the years, and all engineering and design equipment, including blueprints, has been removed. The recent removal of the acoustical ceiling for salvage purposes revealed an ornate pressed-tin ceiling that probably dates back to 1908. Presently this structure, whose condition can only be described as fair to good, stands vacant.

Clubhouse (No. 3). This west-facing, two-story, brick edifice, with its gigantic veranda and dimensions of 72 by 192 feet, was completed in 1917 and might be regarded as Ransom Olds' farewell gift to his employees because it was about this time that he began to relinquish his control of the company. The building located north of the office, rests on brick foundations and has a partially raised full basement. Decorative effect is provided by continuous, narrow, white-painted stone beltcourses at the base of the first and second stories and a heavy stone beltcourse near the roofline, the use of circular windows in the area between this heavy stone course and the roofline, and a two-story gallery supported by square-shaped brick pillars. Windows are of the one-over-one wood sash variety, are set in rectangular surrounds, and have stone slipsills. The structure is capped with a gravel-and-tar-covered flat roof and exhibits a plain overhanging cornice.

This structure was designed to provide Reo employees with a recreational facility, a meeting place, and a lunchroom, and it served this purpose until 1975. On the first floor is a huge ballroom, which until relatively recently housed a huge pipe organ. Other portions of the interior are divided into rooms of various sizes. The hardwood floors and dark wainscoting that are typical of much of the interior appear to be original. Overall, this vacant structure's condition can be described as good.

Factories (Buildings No. 4,6,7). These factories, which are situated south of Factory No. 2 and face westward toward Washington Avenue, were constructed sometime between 1905 and 1919. A 1907 drawing shows them as two-story structures similar in design to Factory No. 2 but much shorter in length, while a 1919 artist's sketch shows them with their present dimensions. All are constructed of brick,

have concrete foundations, and are capped with a combination of flat and monitored roofs covered with tar and gravel. First-and-second-story windows are generally double hung and set in rounded arches while those on the third floor are set in plain rectangular surrounds.

Inside, these structures exhibit some original wood flooring as well as original support posts and ceiling joists. All have been stripped of most of their machinery and stand vacant. Their overall condition can best be described as fair.

1914 Factory (Building No. 8). This three-story brick structure is situated approximately 20 feet south of the Engineering Building, and its east end abuts Factories No. 6 and 7. No. 8 was completed in 1914 and exhibits a somewhat different architectural style than the earlier factories. Rectangular in its configuration, the edifice sits on concrete foundations over a full basement and is capped with a stepped-gable roof decorated with brick corbeling. Its most striking feature is the wall treatment on the first two floors. Projecting buttresses with concrete caps delineate wall sections and exhibit triple-hung windows in metal frames.

The interior of this structure, like those of the other factories, exhibits some original flooring, ceiling joists, and support posts. Almost all of its machinery has been removed, and it presently stands idle. Overall, its condition is fair.

Presently, the future status of the old Reo plant is unclear. Almost all machinery and movable fixtures have been sold, and the structures themselves may be in danger of demolition.

Significance

Ransom Eli Olds, according to distinguished automotive historian John B. Rae, was "the first to demonstrate the possibilities of a mass market for a low-priced car," when he successfully marketed his curved-dash Oldsmobile.[1] Although Olds sold only 600 of his cars during his first year of production in 1901, he rapidly increased this through a hitherto unprecedented advertising campaign in national periodicals and a number of highly publicized races and endurance runs. By 1904 sales of the curved-dash Oldsmobile had reached 5,000, making it by far the Nation's best selling automobile.

Olds was also responsible for highly significant innovations in manufacturing techniques. From the start he relied on subcontractors for many automotive components and, according to Rae. "carried the assembly of parts from outside supplier firms farther than anything attempted before."[2] In addition Olds, says his biographer Glenn A. Niemeyer, "devised a progressive assembly system, which contained all the elements of the modern assembly line with the exception of the power conveyor."[3]

In 1904, shortly after he left the Olds Motor Works, Olds founded the Reo Motor Car Company. Within the 3 years it had gross sales of $4 million and ranked as one of the Nation's four leading automobile manufacturers. After 1908, however, Reo's share of the automobile market shrank largely due to the development of giants like Ford and General Motors. Gradually, Olds withdrew from active management, and the firm confined itself largely to the manufacture of quality medium-priced cars and trucks on a relatively small scale. In the 1930's automobile production ceased, and the firm concentrated on its line of trucks before it was eventually merged with several other truck manufacturers.

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History

Ransom Eli Olds was born June 3, 1864, in Geneva, Ohio, to Pliny F. and Sarah W. Olds. Details about Ransom's childhood are sketchy, except that his family moved around a great deal due to his father's search for satisfactory employment. When Ransom was 6, Pliny Olds gave up his blacksmith shop in Geneva and moved the family to Cleveland where he became superintendent of an iron works. Four years later, Pliny resigned due to poor health, farmed for a year near Parma, and then returned to Cleveland again. Finally, in 1880, when Ransom was 16, the Olds family settled permanently in Lansing, Mich., where Pliny opened a machine shop. After finishing the 10th grade in Lansing, Ransom took a 6-month course at Bartlett's Business College in 1882-83 before becoming a combination machinist-bookkeeper for P. F. Olds and Son.

In 1885 Ransom became a partner in the family firm, and soon afterwards it became a leading manufacturer of gasoline-heated steam engines. Soon he developed an interest in self-propelled land vehicles, and in 1887 he built a three-wheel

steam car. Five years later he built a four-wheel model with a dual engine and powered on the locomotive principle. Increasingly, however, Olds began to concentrate his attention on gasoline engines and became, says automotive historian Richard Crabb, "one of the country's leading authorities on the internal combustion engine, its design, manufacture, and marketing."[4] In 1896 he built his first gasoline car, and 1 year later he formed the Olds Motor Vehicle Company to manufacture them. At the same time, he took over P. F. Olds & Son, changing its name to the Olds Gasoline Engine Works.

Although Olds' engine company prospered, his motor vehicle operation did not, chiefly because of inadequate capitalization. In 1899 he liquidated it and incorporated a new company, the Olds Motor Works, with financial backing from Samuel L. Smith, a wealthy lumber magnate. Operations were shifted from Lansing to Detroit, and Smith, who owned most of the company's stock became president, while Olds served as vice president and general manager. During its first year in Detroit, the company got off to a shaky start, largely due to Olds' indecision about what type car to produce.

By 1901, however, Olds had perfected the design for the curved-dash Oldsmobile, which sold for $650. It proved a smashing success, says Rae, and made Olds "the first to demonstrate the possibilities of a mass market for a low priced car."[5] Despite destruction of almost his entire factory by fire just as production of the curved-dash car had gotten underway, Olds managed to regroup and manufacture and sell 600 of these cars that year. By 1904 sales of the curved-dash model had reached the yet unheard of figure of 5,000. Much of Olds' success was due to a hitherto unprecedented advertising campaign in national periodicals and a number of highly publicized races and endurance runs.

Heavy demand for the Oldsmobile led Olds to modify the automobile manufacturing techniques in use at that time. From the beginning, he relied on subcontractors and, according to Rae, "carried the assembly of parts from outside supplier firms farther than anything attempted before."[6] In addition, Olds, says his biographer Glenn A. Niemeyer, "devised a progressive assembly system, which contained all the elements of the modern assembly line with the exception of the power conveyor."[7]

Shortly after the Olds Plant in Detroit burned in 1901, the company moved most of its production facilities back to Lansing. Despite his success with the curved-dash Oldsmobile, Olds grew increasingly restive because control of the company remained in the hands of Samuel Smith and his son Frederic. By 1904 bitter feelings between the Smiths and Olds had reached such an impasse that they ousted him from his post as vice president and general manager, and he left the company in a huff.

In August, 1904, Olds organized the R. E. Olds Motor Car Company, a name that was soon changed to Reo in order to avert a threatened lawsuit from the Olds Motor Works. Although a number of individuals invested in the company, Olds held control with 52 percent of the stock as well as the titles of president and general manager. To provide Reo with a reliable supply of parts, he organized a number of subsidiary firms like the National Coil Company, the Michigan Screw Company, and the Atlas Drop Forge Company.

By 1907 Reo had gross sales of $4 million, and Olds headed one of the top four automobile manufacturers in the Nation. One year later, William C. Durant attempted a merger of Buick with Reo, Ford, and Maxwell-Briscoe, but the whole

deal collapsed when first Ford and then Olds demanded $3 million in cash for their companies instead of stock in the new combination. After 1908, despite the introduction of improved cars designed by Olds, Reo's share of the automobile market shrank, due in part to the development of giants like Ford and General Motors. Reo's stagnation must be attributed in large part also to Olds himself, because as Niemeyer readily admits his "talents were mechanical rather than administrative, and he concerned himself primarily with technological improvements."

Although Olds added a truck manufacturing division to Reo in 1910 as well as Canadian automobile plant, he gradually lost interest in the company as he turned his attention to other ventures like power mowers, Florida land development, banking, and an investment firm. In 1915 he relinquished the title of general manager to his protege Richard H. Scott, and 8 years later, he gave up the company's presidency as well, retaining only the honorary position of chairman of the board.

Under Scott's direction, Reo from 1915 to 1925 remained profitable though small and earned an excellent reputation for well-built cars and trucks. In 1925, however, Scott launched an ambitious expansion program designed to make the company more competitive with other automobile manufacturers by offering cars in different price ranges. The failure of this program and the effects of the depression caused such heavy losses that Olds came out of retirement in 1933 and recaptured control of Reo from Scott.

Olds' return to power was brief, however. Late in 1934, he resigned from the company's executive committee, because it refused to approve his plan for a new four-cylinder car. In 1936, the same year Reo abandoned the manufacture of automobiles, Olds resigned as chairman of the board. Until his death on August 26, 1950, at the age of 86, he devoted his time to myriad other business interests.

In the years after Olds left Reo, the firm continued to experience serious financial problems. Although World War II truck orders enabled it to make something of a comeback, the company remained unstable in the postwar era. In 1954 the company was sold to the Bohn Aluminum & Brass Corporation of Detroit, and 3 years later became a subsidiary of the White Motor Company. White merged Reo with Diamond T trucks in 1967 to form Diamond Reo Trucks, Inc. In 1975 this firm filed for bankruptcy, and most of its assets with the exception of the Reo plant have been liquidated.

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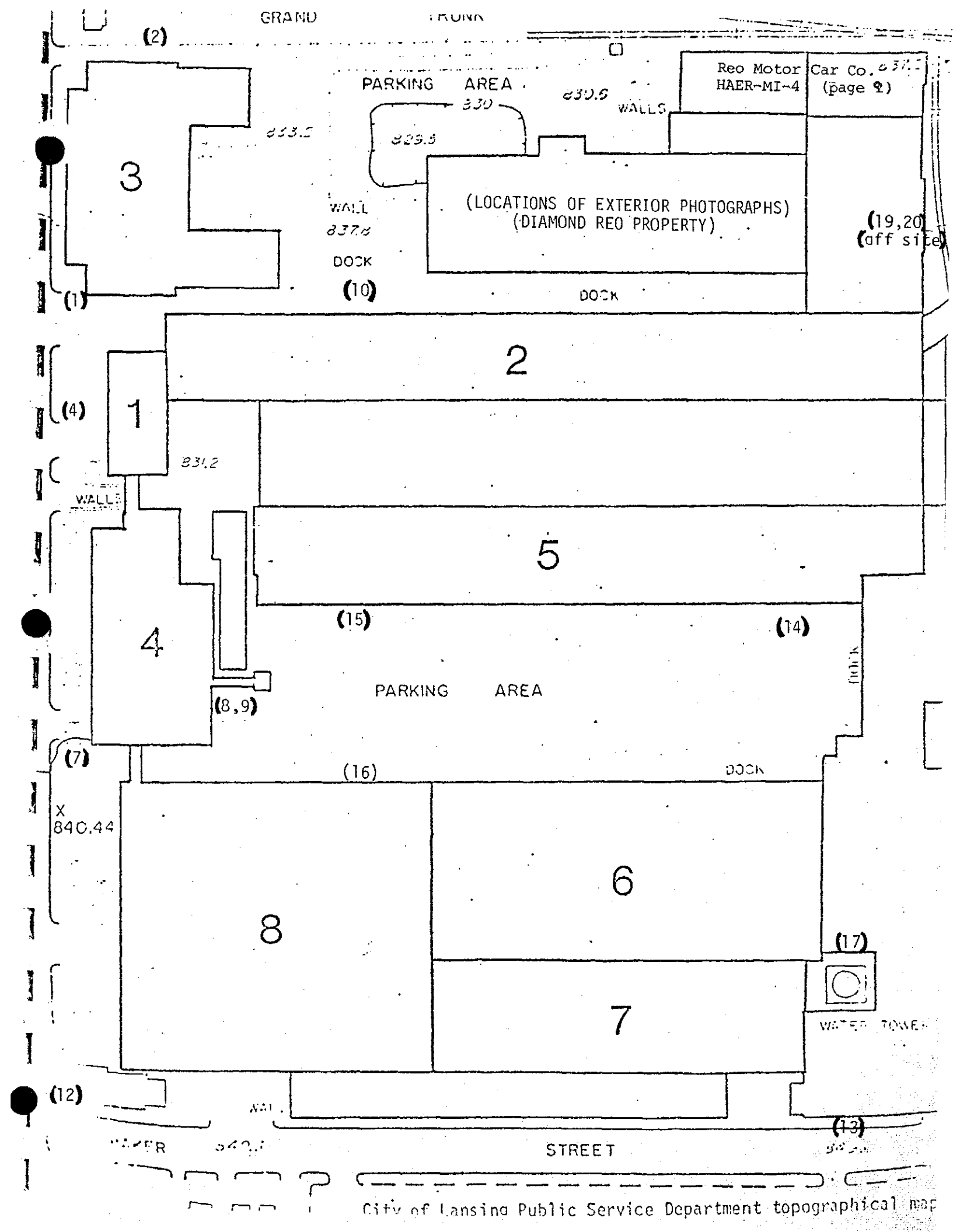
GRAND TRUNK
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Reo Motor Car Co.
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STREET
City of Lansing Public Service Department topographical map